

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1 and 2 are pending in this application. Claims 1 and 2 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Application Publication 2004/0207593 to Ha et al. (herein "Ha"). That rejection is traversed by the present response as discussed next.

Independent claim 1 is amended by the present response to clarify a structure of the electrode patterns recited therein. Specifically, independent claim 1 now recites:

wherein all of the electrode patterns have substantially identical shapes and two-dimensionally overlap all of the switch control signal lines, and areas of all of the electrode patterns are substantially identical.

That subject matter is shown for example in Figure 2 in the present specification as a non-limiting example. That subject matter is also noted in the present specification for example at page 10, lines 9-14.

Independent claim 1 as currently written is directed to an array substrate for a flat display device. With reference to Figure 2 in the present specification as a non-limiting example, a plurality of switches ASW1-ASWn are placed between output lines D1-Dx and signal lines S1-Sn. Further, switch control signal lines ASWL1, ASWL2 supply control electrodes of the switches ASW1-ASWn with control signals.

As also shown in Figure 2, a plurality of electrode patterns P1-Pn connect the control electrode of each switch ASW1-ASWn to any one of the switch control signal lines ASWL1, ASWL2, and further the electrode patterns P1-Pn have substantially identical shapes, each two-dimensionally overlap all of the switch control signal lines ASWL1, ASWL2, and areas of the all electrode patterns P1-Pn are substantially identical.

Figure 3 shows a comparison device with respect to Figure 2 in which electrode patterns do not overlap each of switch control signal lines and do not have substantially

identical shapes and areas. As recognized by the applicants of the present invention, in such a device as in Figure 3, with the shape of such electrode patterns not overlapping all of the switch control signal lines, and not having substantially identical shapes and areas, parasitic capacitances of left and right switches ASW may be unequal.¹

The present inventors recognized that the claimed structure, and again with reference to Figure 2 in the present specification as a non-limiting example, in which the electrode patterns P1-Pn have substantially identical shapes, overlap all of the switch control signal lines ASWL1, ASWL2, and in which areas of all electrode patterns P1-Pn are substantially identical, can provide significant benefits. First, all of the left and right switches will have approximately equal parasitic capacitances, thereby times required to charge adjacent pixels with data signals are approximately equal, and thereby display unevenness is eliminated and favorable display characteristics can be obtained.² Further, with the claimed electrode configuration, differences in lengths between the electrode patterns P1-Pn can be easily found by visual inspection, and thereby process yield can be improved.³ Further, with the claimed structure it is only necessary to change a contact hold formation layer to change the connection between the electrode patterns and the appropriate control signal line ASWL1, ASWL2, and thereby there is no need to change a plurality of masks, and costs as a result of design changes can be reduced, in addition to providing more flexibility in circuit design.⁴

Applicants respectfully submit the above-noted features particularly directed to the “plurality of electrode patterns” are neither taught nor suggested by the applied art to Ha. More specifically, applicants respectfully submit Ha does not disclose or suggest the above-noted features that:

¹ Specification at page 10, lines 15-24.

² Specification at page 10, line 25 to page 11, line 3.

³ Specification at page 11, lines 4-8.

⁴ Specification at page 11, lines 9-18.

wherein all of the electrode patterns have substantially identical shapes and two-dimensionally overlap all of the switch control lines, and areas of all the electrode patterns are substantially identical.

With respect to the features of the electrode patterns the outstanding Office Action cites Ha at Figure 2 and states:

. . . wherein [in Ha] the electrode patterns each two-dimensionally overlap all of the switch control signal lines and have substantially identical shapes [0014] (*fig. 2 item gate line DL1 and DLm + 1 wherein the gate lines show in figure 2 overlap with the control signal lines C1-Cm and are the same shape*).⁵

In reply to that grounds for rejection applicants respectfully submit the outstanding Office Action is misconstruing the teachings in Ha relative to the claimed features. In the claims as written, and again with reference to Figure 2 in the present specification as a non-limiting example, all of the electrode patterns P1-Pn have substantially identical shapes and the areas of the all the electrode patterns are substantially identical. In contrast to the claims as written, in Ha the gate lines DL1-DLn do **not** have substantially identical shapes and the areas of the electrode patterns (C1, DL1) . . . (Cm, DLm) are **not** substantially identical.

In Figure 2 in Ha it is clear that the gate line DL1 and the gate line DL2 and the gate line DLm do **not** have the same areas. In Ha the gate line DL1 is **longer** than the gate line DL2, and both of which are **longer** than the gate line DLm. Thereby, those gate lines do **not all have substantially identical areas**.

Further, in the claims as written the electrode patterns “two-dimensionally overlap **all of the switch control signal lines**” (emphasis added). That is clearly not the case in Ha. In Ha the gate line DL2 does **not** overlap the control signal lines C1, and the gate line DLm does **not** overlap at least the shown control signal lines C1, C2.

⁵ Office Action of November 28, 2007, top of page 3.

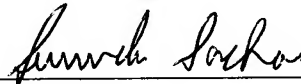
In such ways, in Ha the gate lines DL1-DLm, which were cited as corresponding to the claimed "electrode patterns", do not two-dimensionally overlap all of the switch control lines, and do not have substantially identical shapes, and do not have areas that are substantially identical. Thereby, Ha does not disclose or suggest all the limitations in amended independent claim 1, and claim 2 dependent therefrom.

In view of the present response, applicants respectfully submit amended independent claim 1, and claim 2 dependent therefrom, clearly patentably distinguish over Ha.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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